

REMARKS

Entry of this Amendment and reconsideration are respectfully requested in view of the amendments made to the claims and for the remarks made herein.

Claims 1-7 and 9-16 are pending in the application and stand rejected.

Claims 1, 4, 5, 9, 10, and 12 are independent claims.

Claims 1, 4, 5, 9, 10, 12 and 13 have been amended.

The Specification is objected to for failing to provide clear support or antecedent basis for newly presented and amended claims. Claims 4 and 9-16 stand rejected under 35 USC §101 for allegedly being directed to non-statutory subject matter. Claims 1-7 and 9-16 stand rejected under 35 USC §112, first paragraph as failing to comply with the written description. Claims 1-7 and 9-16 stand rejected under 35 USC §112, second paragraph. Claims 1, 2, 4-6, 9-10, 12-14 and 16 stand rejected under 35 USC §102(e) as being anticipated by Hamilton (USPPA 2003/0139980). Claims 3, 7, 11 and 15 stand rejected under 35 USC §103(a) as being unpatentable over Hamilton in view of Sitaraman (USPPA 2006/0179154).

With regard to the specification failing to provide clear support or antecedent basis for the amended claims, applicant respectfully disagrees with the objection. However, applicant has amended the claims, herein, to place the claims and the specification in a form that discloses the invention claimed in sufficient detail to enable one to practice the invention.

With regard to the rejection of claims 4 and 9-16 under 35 USC §101, applicant respectfully disagrees with and explicitly traverses the rejection of the claims. However, in order to advance the prosecution of this matter, the independent claims have been amended to incorporate a computer system or processor to represent the physical element upon, or within, which the elements recited in the claims are manifested. The use of a computer system or a processor in executing the recited claim steps, thus, describes a machine that produces a useful, concrete and tangible result.

The use of a computer system and/or processor within the computer system would be understood and recognized by those skilled in the art based on a reading of the invention disclosed in the written description. Accordingly, no new matter has been added to the claims.

With regard to the rejection of claim 12, applicant disagrees that the term "server" "does not inherently mean that the claim is directed to a machine," as the term "server" is a term-of-art well-known in the computer field as being a physical entity including processing chip(s), memory and communication ports. As the courts have held a patent application is written for those skilled in the art and each and every detail of the implementation of an operation need not be expressed in exacting detail. Rather the written description should provide sufficient detail to enable one skilled in the art to practice the invention claimed. The courts have further held that the claims should be interpreted in view of the specification and, as the specification is directed to a networking system, one skilled in the art would understand and recognize that the term "server" is a physical element of such a networking system.

Accordingly, for the amendment made to the claims and for the remarks made herein, applicant submits that the reason for the rejection of the claims has been overcome.

With regard to the rejection of claims 1-7 and 9-16 under 35 USC 112, first paragraph, applicant respectfully disagrees with and explicitly traverses the rejection of the claims. However, applicant has amended the claims to recite the invention claimed in better form. More specifically, the independent claims have been amended to recite that after an interruption the interrupted stream is continued with another connection associated with the user determined by the bandwidth of the network, one of the pre-formatted content versions is then determined based on the connection and that an accessing point corresponding to the last random access point in the interrupt steam is determined based on the selected content version (i.e., "interrupted streaming session from said last random access point by one of said connections available to said user, wherein which of said content formatted in a plurality of encoding rates is determined by an encoding rate offered by said one of said connections, a position within said

determined content associated with said one of said connections is determined based on said last random access and said one of said connections is determined based on an available bandwidth of the network."). No new matter has been added. Support for the amendment may be found at least on page 4, line 22 – page 5, line 10 and Table 1 which describe and illustrate the relationship of access points R_1, R_2, \dots, R_x having an address of the data associated with the access point ($A_k(R_j)$) within each of a plurality of content versions $V_{i,j}$. The address $A_k(R_j)$ "is the address of the random access point carrying the reference R_j in the file containing the version $V_{i,k}$."

Thus, Table 1 describes a location (i.e., an address) within each version that corresponds to each access point (R_j) and, thus, may be used to find corresponding information within each version based on a selected access point. Thus, the same data point (i.e., position) within each version associated with an access point may be determined based on information stored in Table 1. Thus, when a last random access point, obtained from one connection, is available, then a corresponding position within another version, which is associated with a connection, associated with a second terminal, may be determined.

For the amendments made to the claims, applicant submits that the reason for the rejection has been overcome.

With regard to the remaining claims, these claims depend from one of the independent claims and, hence, the rejection of these claims has also been overcome.

With regard to the Office Action assertion that the specification fails to refer to "said connection being determined based on an available bandwidth," applicant would note that the terms "bandwidth" and "transmission rate" are used interchangeably in the networking field in that bandwidth and transmission rate are inversely proportional wherein a product of the bandwidth and transmission rate is ideal equal to one (1). The written description teaches "[t]he streaming module 140 needs to have the knowledge of the transmission rate offered by the connection for selecting the version of the content which encoding rate best matches this transmission rate before starting the streaming session." (see page 5, lines 7-9) and that "the user count manager 150 recovers in the user

database 200 the initial sending rate $SR_{u,v}$ to be used with the current terminal connection $IT_{u,v}$." (see page 6, lines 21-22).

Hence, from the written description, one would recognize that the connection must have a bandwidth or transmission rate less than or equal to that of the network and, hence, is selected based on the available transmission rate (bandwidth) and then a pre-formatted content version selected based on the transmission rate of the connection, which is less than or equal to the bandwidth of the network.

With regard to claim 14-16, applicant submits that support for the subject matter claimed may be found, for example, on page 6, line 11-12 ("...the user count manager 150 recovers in the use database 200, the initial sending rate ... to be used with the current terminal connection."), on page 2, line 7-14 (" ... said database further stores user connection data comprising an identification of each connection available to said user ...") and on page 5, lines 15-17 ("...for each connection available to the user, a connection identifiers ... and an initial sending rate ... to be used when starting or resuming a streaming session ...).

Accordingly, applicant believes that there is sufficient teaching in the written description to support the subject matter claimed.

Claims 1-7 and 9-16 stand rejected under 35 USC 112, second paragraph.

Applicant respectfully disagrees with and explicitly traverses the rejection of the claims as it would be recognized that the formatted content refers to the plurality of encoding rates.

However, in order to present the claims in a more precise form, each of the independent claims has been amended to more specifically state that the content is formatted in a plurality of encoding rates and the access points are common in each of said formatted encoding rate version of said content. No new matter has been added. Support for the amendment may be found at least in Table 1.

With regard to the format of claims 4, 5 9 and 10 applicant has amended these claims to place them in better form.

With regard to the meaning of the term "last access point" applicant has amended the claims to more clearly define the meaning of the term. The amendment made to the claim is similar to the wording of this term in claims 9 and 10 (i.e., "of an indication of the streamed content and of a last random access point in the streamed content when the streaming session was interrupted).

For the amendments made to the claims, applicant submits that the reason for the rejection has been overcome.

With regard to the claim element "wherein said last random access point is correlated with an access point ..." this element has been removed from the claims. Hence, the reason for the rejection is no longer applicable.

With regard to claim 13, this claim has been amended to present the subject matter claimed in better form.

For the amendments made to the claims, applicant submits that the reason for the rejection has been overcome.

Claims 1-2, 4-6, 9-10 and 12-16 stand rejected under 35 USC 102(e) as being anticipated by Hamilton (USPPA 2003/0139980). In rejecting the claims, the Office Action refers to para. 0060 and 0079 for teaching the claim element "said content being formatted in a plurality of encoding rates," and also refers to para. 0059 and 0079 for teaching the claim element of a specific encoding rate of said content is associated with a specific ... channel based on matched bit rates." In addition, the Office Action refers to para. 0090 for teaching that resumption of an interrupted streaming session from the last random access point.

Applicant respectfully disagrees with and explicitly traverses the rejection of the claims.

Hamilton discloses a system for delivering content on-demand by way of a cable network. Hamilton discloses that a server under software control causes a media receiver

at the customer premises to be properly tuned to receive content on-demand and content on-demand to be played as requested by the computing device. Hamilton discloses a content table 314 that includes a bit rate field that stores the bit rate "at which the content is to be streamed." (see para. 0060). In performing transmission of the content on-demand, Hamilton discloses locating an RF channel within an RF channel group associated with a distribution node 76 for transporting content on-demand. (see para. 0078). The located RF channel type is compatible with the modulation scheme and should have "sufficient remaining bandwidth ... to carry [the] desired content." (see para. 0078). Hamilton further discloses that when the "required bandwidth is available, an RF channel is identified and a pre-allocated channel for carrying an MPEG 2 stream is chosen within this RF channel. (see para. 0079). Hamilton further discloses that the bit-rate field is populated with a bit rate that is "indicative of the channel's bit rate. The bit rate may, for example, depend on the nature of the content requested by the customer and may be determined from the bit-rate field ... of the associated content record." (see para. 0079).

Hence, Hamilton discloses a system wherein content is transmitted over an available connection wherein the bit-rate of the content to be transmitted may depend on the content, which may be determined by a bit-rate value stored in a content field. Thus, the operation of Hamilton is to provide the content to the network at a pre-determined bit-rate. This step of providing the content at a bit-rate thus is performed dynamically as nowhere does Hamilton disclose pre-configuring the content based on a plurality of encoding rates, as is recited in the claims. In fact, Hamilton fails to provide any teaching that the content is in a pre-configured format, and, hence, the content must be stored in an original, i.e., un-configured) to allow for the encoding and transmission at different encoding rates.

The use of this original content format is further justified in that when an interruption occurs, Hamilton maintains only a single point where the content was interrupted. Hamilton fails to disclose any process for determining a location within a file containing the content formatted in a different bit-rate from the last stored access point, as is recited in the claims.

Although Hamilton discloses that the resumption of an interrupted program may

be provided to another device, (see para. 0079) Hamilton fails to provide any teaching regarding determining a point to begin data streaming from a point in the content associated with the another device from a point of interruption of the data stream in a first device. Rather, the program resumption is from the point of interruption and may be at a different bit rate based on the second device. Hamilton fails to address the rate of transmission to the second device and one could recognize that the bit rate to the second device would be compatible with that of the second device.

A claim is anticipated if and only if each of the elements recited in the claims are presented in a single prior art reference.

In this case, the aforementioned claims are not anticipated by the teachings of Hamilton, as Hamilton fails to disclose a material element recited in the claims.

Claims 3, 7, 11 and 15 stand rejected under 35 USC 103(a) as being unpatentable over Hamilton in view of Sitaraman (USPPA 2006/0179154).

Applicant respectfully disagrees with and explicitly traverses the rejection of the claims.

Sitaraman discloses a streaming measurement agent designed to experience, measure and report on a media stream as an actual end user would experience the stream. Sitaraman discloses that for multi-bit rate media, there are multiple interleaved encodings, each encoding at a different bit rate. Sitaraman disclose that when degradation in the network "the server may step down from a higher-bit rate encoding to a lower bit rate encoding."

The Office Action acknowledges that Hamilton does not disclose several encoded versions of the content, wherein each version having a specific encoding rate and refers to Sitaraman for disclosing that the multiple bit rate encoding of the content. The Office Action asserts that it would be obvious to incorporate the teaching of Sitaraman into that of Hamilton.

However, Sitaraman fails to provide any teaching regarding how the switch from a high-bit rate to a lower bit rate transmission occurs or that there are access points within each file that are common that may be used in the transition from one bit-rate to another.

Even if it could be said that the teaching of Sitaraman could be included in the teachings of Hamilton, the combination of Hamilton and Sitaraman fails to disclose the element of the "encoded rate content format [is] associated with each of a plurality of connections," as is recited in the claims.

Rather, Sitaraman discloses that the encoded content is used to transition from a high-rate to a lower rate as the network degrades (see para. 0058) and fails to provide any teaching that the bit rates are associated with any connection.

As Sitaraman fails to disclose any relationship of the bit-rates one would recognize that the bit rates used to encode the content are arbitrarily selected so as to allow lower bit rates to be transmitted as the network degrades.

A claimed invention is *prima facie* obvious when three basic criteria are met. First, there must be some suggestion or motivation, either in the reference themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the teachings therein. Second, there must be a reasonable expectation of success. And, third, the prior art reference or combined references must teach or suggest all the claim limitations.

In this case, a *prima facie* case of obviousness has not been made as each of the elements recited in the claims is not disclosed by the combination of Hamilton and Sitaraman.

Accordingly, applicant submits that the rejection of the aforementioned claims has been overcome and respectfully requests that the rejection be withdrawn.

For the amendments made to the claims and for the remarks made herein, applicant submits that all the objections and rejections have been overcome and that the claims are in a condition for allowance. It is respectfully requested that a Notice of Allowance be issued.

Respectfully submitted,

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